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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,701	11/05/2001	Andrew Heaton	07579.0014	8634

7590

04/29/2003

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EXAMINER

SHAMEEM, GOLAM M

ART UNIT

PAPER NUMBER

1626

DATE MAILED: 04/29/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/889,701

Applicant(s)

HEATON ET AL.

Examiner

Golam M M Shameem

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4-9 and 47-71 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-9 and 47-71 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION*****Status of Claims***

Claims 1, 4-9 and 47-71 are pending in the application. Receipt is acknowledged of amendment / response (paper No. 13) filed on January 22, 2003 which has been entered in the file. Claims 1 and 4-9 have been amended. Claims 2, 3, and 10-46 have been canceled. Claims 47-71 have been added.

***Response to Arguments***

Claims 1-9 and 40 are rejected under 35 U.S.C. §102 (b) as being unpatentable over Szabo et al. and Inoue (1964) of record and the rejection has been maintained for the reasons given in the last office action (paper No. 9). Applicant's arguments have been fully considered but are not deemed persuasive with respect to the above rejections under 35 U.S.C. §102 (b) because Applicants' arguments unsupported by objective and competent factual evidence are entitled to little weight. *In re Greenfield* 197 USPQ 227. *In re Lindner* 173 USPQ 356. Applicant's amendment in claim 1 with the limitation "in high to quantitative yield and without the need for chromatographic purification" is insufficient to overcome the rejection because one ordinary skill in the art is deemed to be aware of all pertinent art in the field. Further, submission of amendments necessitates a new ground of rejection.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1626

Claims 1, 4-9 and 47-71 are rejected under 35 U.S.C. 102(b) as being anticipated by Szabo et al (1973) and Inoue (1964). Applicant claims a process for the production of isoflavones derivatives by a hydrogenation reaction. Szabo et al (1973) and Inoue (1964) independently disclose the process of preparing isoflavones derivatives by selective catalytic reduction of isoflavone using palladium catalyst in ethanol (In Tetrahedron Letters, line 3, second paragraph, page 1659) and also using platinum oxide catalyst (STN International, CAPLUS database, page 5, document number 61:32297), which anticipates the instantly claimed method. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Also see M.P.E.P. 2113.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a), which forms the basis for all obviousness rejections, set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-9 and 47-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szabo et al (1973) and further in view of Inoue (1964).

Applicant claims a method for producing isoflavone derivatives.

Determination of the scope and content of the prior art (MPEP §2141.01)

Szabo et al (1973) and Inoue (1964) independently disclose the process of preparing isoflavones derivatives by selective catalytic reduction of isoflavone using palladium catalyst in ethanol (In Tetrahedron Letters, line 3, second paragraph, page 1659) and also using platinum oxide catalyst (STN International, CAPLUS database, page 5, document number 61:32297).

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The difference between the process taught in the references and the claimed process herein lies merely in the variation of catalyst combination and other reaction conditions such as “chromatographic purification” to obtain “in high to quantitative yield”. The differences between the instant claims and the prior art references are so negligible, that one of ordinary skill in the chemical arts would expect slight variations to be within the expected purview of 35 U.S.C. 103(a). The disclosure of Szabo et al (1973) and Inoue (1964) teach several combinations that would easily place Applicants invention in possession of the public at the time of Applicants invention was filed.

Finding of prima facie obviousness--rational and motivation (MPEP §2142-2413)

It is obvious to prepare compounds by an old method using analogous starting materials and determining optimum reaction conditions in the absence of any unobvious or unexpected results. The motivation to make the claimed method derives from the expectation that the use of analogous reaction such as hydrogenation step and reduction catalyst including platinum, platinum oxide under specific set of reaction conditions (including chromatographic purification) would have made similar products and similar rate of recovery. The determination of optimum reaction conditions is routine experimentation and to one skilled in the art. Applicants should

Art Unit: 1626

note that a generic teaching is grounds for 35 USC § 103(a) obviousness type of rejection. In looking at the instant claimed compounds as a whole, the claimed method would have been suggested to one skilled in the art unless unobvious or unexpected results can be shown.

Therefore, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Golam Shameem, Ph.D. whose telephone number is (703) 305-0116. The Examiner can normally be reached on Monday-Friday from 8:30 AM - 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane, can be reached at (703) 308-4537. The Unofficial fax phone number for this Group is (703) 308-7921. The Official fax phone numbers for this Group are (703) 308-4556 or 305-3592.

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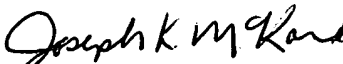
Art Unit: 1626

documents and other communications with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [joseph.mcKane@uspto.gov]. All Internet e-mail communications will be made of record in the application file. PTO employees will not communicate with applicant via Internet e-mail where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is of record an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the applicant. See the Interim Internet Usage Policy published by the Patent and Trademark Office Official Gazette on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, whose telephone number is (703) 308-1235.

Golam M M Shameem, Ph.D.  
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Art Unit 1626, Group 1600  
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Joseph K. McKane  
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April 24, 2003